## What is claimed is:

 A three-dimensional image displaying apparatus comprising:

a front display unit having at least one transparent display screen, the at least one transparent display screen including a plurality of organic electroluminescent elements;

a rear display unit located behind the front display unit and having a display screen; and

a spacer connected between the front display unit and the rear display unit.

- 2. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer prevents transmission of gas.
- 3. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer is a cylindrical member.
- 4. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer is a transparent plate member.
- 5. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer has an anti-reflection characteristic.
- 6. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer includes a mechanism for adjusting a width of the spacer to adjust a distance between the front display unit and the rear display unit.
  - 7. The three-dimensional image displaying apparatus

according to claim 1, wherein the front display unit includes a first organic functional layer and the rear display unit includes a second organic functional layer.

- 8. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer is hermetically connected between the front display unit and the rear display unit.
- 9. The three-dimensional image displaying apparatus according to claim 7, wherein the spacer has a hollow space and at least one of the first and second organic functional layers is located in the hollow space of the spacer.
- 10. The three-dimensional image displaying apparatus according to claim 9, wherein at least one of the first and second organic layers is covered with a sealing device.
- 11. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer is a solid member.
- 12. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer includes a plurality of poles.
- 13. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer has a coating that restrains reflection.
- 14. The three-dimensional image displaying apparatus according to claim 1, wherein the spacer is a hollow member filled with an inert gas.
- 15. A method of making a three-dimensional image displaying apparatus, comprising:

providing a front display unit;

providing a rear display unit; and

connecting the front display unit with the rear display unit by a spacer such that a display screen of the front display unit is parallel to a display screen of the rear display unit.

- 16. The method according to claim 15, wherein the step of providing the front display unit includes providing an organic electroluminescent display screen made from a plurality of organic electroluminescent elements.
- 17. The method according to claim 16, wherein the front display unit has at least one transparent display screen, and the rear display unit is located behind the front display unit.
- 18. The method according to claim 17, wherein the organic electroluminescent display screen includes an organic functional layer which has a light emitting layer, and the light emitting layer emits light upon application of a current.
- 19. The method according to claim 18, wherein the front display unit is hermetically connected with the rear display unit by the spacer.
- 20. The method according to claim 19 further including locating the organic functional layer in a hermetic confinement defined by the front display unit, spacer and rear display unit.